

SHESTAKOVA, G.S.

Mechanics of bird flight [with English summary in insert]. Zool.zhur.  
25 no.7:1043-1050 J1 '56. (MLRA 9:9)

I.Institut morfologii zhivotnykh AN SSSR.  
(Flight)

YAKOBI, V.E.; KOKSHAYSKIY, N.V.; BORODULINA, T.L.; SHESTAKOVA,  
G.S., doktor biol. nauk, prof., otd. red.; BROVKINA, Ye.T.,  
red.izd-va; KHENOKH, F.M., tekhn. red.

[Functional morphology of birds] Funktsional'naia morfolo-  
giia ptits. Moskva, Izd-vo "Nauka," 1964. 91 p.  
(MIRA 17:4)

ZIV, D.M.; SHESTAKOVA, I.A.

Solubility of some actinium compounds. Part 1: Determination  
of the solubility of actinium oxalate. Radiokhimiia 7 no.2,  
166-175 '65.

Solubility of some actinium compounds. Part 2: Determination of  
solubility and evaluation of the relative basicity of actinium  
hydroxide. Ibid.:175-187 (MIRA 18:6)

S/081/63/000/004/017/051  
B166/B186

AUTHORS: (17) Kalabina, A. V., Myasnikova, L. S., Kolmakova, E. F.,  
Shestakova, I. R., Pavlova, M. P., (18) Kalabina, A. V.,  
Prilezhayeva, Ye. N., Yakovleva, Z. I.

TITLE: Studies in the field of synthesis and conversions of vinylaryl esters. No. 17. Synthesis and certain properties of  $\alpha,\beta$ -di-bromethylaryl esters. No. 18. The addition of mercaptans to vinyl esters of the aromatic series

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 238, abstract  
4Zh122 (Izv. Fiz.-khim. n.-i. in-ta pri Irkutskom un-te, v. 5,  
no. 1, 1961, 193 - 206, 225 - 237)

TEXT: (17) Bromination of the vinyl esters of phenol (I), o-cresol (II), n-tert-butylphenol and thymol (III) in  $CCl_4$  gave the respective  $\alpha,\beta$ -dibromoethyl esters (IV - VII), which have lachrymatory properties; without the solvent partial polymerization takes place. IV - VII probably exist in the form of two tautomeric forms  $CH_2BrCHBrOAr \rightleftharpoons [CHBr-CHO(H)Ar]^+Br^-$ , as ionic Br is easily back-titrated by aqueous solutions of NaOH and  $AgNO_3$ ,  
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whilst IV - VII themselves are smoothly converted into  $\beta$ -bromvinyl esters (BVE) when vacuum distilled, yield 80 - 85%. Hydrolysis of IV - VII proceeds in two distinct stages: first of all under the action of  $H_2O$  cold there is dissociation of the weak oxonium complex, and the BVE which forms only splits with long boiling in an acid medium. Into a solution of 0.14 moles I in 40 ml  $CCl_4$  at  $-5^{\circ}C$  ( $3 - 8^{\circ}C$  inside the flask) were stirred, over a period of 1.5 - 2 hrs, 0.15 moles dry  $Br_2$  in 20 ml  $CCl_4$ , and IV,  $C_8H_8OBr_2$ , was distilled off, yield 97.2%, b.p.  $129 - 130^{\circ}C/12$  mm Hg,  $n^{20}D$  1.5849,  $d_4^{20}$  1.7418, fumes in air. 3 g IV and 50 ml water were shaken in a closed bottle at  $45 - 50^{\circ}C$  for 5 hrs, this was extracted with ether, and 1.19 g phenol BVE (VIII) was separated by distillation, b.p.  $100 - 102^{\circ}C/10$  mm Hg,  $n^{20}D$  1.5750, as well as 1.403 g IV. 1 g VIII and 25 ml 5%  $H_2SO_4$  were heated, stirring at  $\sim 100^{\circ}C$  for 6 - 7 hrs; this was neutralized with alkali and extracted with ether; after evaporating,  $BrCH_2CHO$  was separated from the residue in the form of a semicarbazone; the alkaline layer was treated with 10%  $H_2SO_4$ ,  $C_6H_5OH$  was extracted with ether. V - VII were synthesized under similar conditions

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(below are given: the substance, yield %, b.p. in °C/mm Hg,  $n^{20}_D$ ,  $d_4^{20}$ );  
V, 97.6, 133 - 134/14, 1.5718, 1.5662, (BVE, b.p. 145 - 148°C/35 mm Hg,  
 $n^{20}_D$  1.5662); VI, 96.1, 126 - 127.3, 1.5450, 1.4909; VII, 97.5, 149 - 150.4,  
1.5548, 1.4595.

(18) The addition of ethyl- and butylmercaptans to I - III was achieved by ionic and radical mechanisms, leading to  $\text{CH}_3\text{CH}(\text{SR})\text{OAr}$  (IX) and  $\text{RSCH}_2\text{CH}_2\text{OAr}$  (X) respectively. Substitutes of the first kind in the benzene ring considerably simplify radical addition. The thioacetals produced are easily hydrolyzed with dilute  $\text{H}_2\text{SO}_4$  and split quantitatively when X is treated with  $\text{HgCl}_2$ , which proves their structure to be that of  $\beta$  adducts; under these conditions IX is highly stable. 0.1 mole I, 0.1 mole  $\text{C}_2\text{H}_5\text{SH}$  and 0.02 g azo-diisobutyronitrile were heated in a sealed ampoule at 90 - 100°C for 24 hrs, and X ( $\text{R} = \text{C}_2\text{H}_5$ , Ar =  $\text{C}_6\text{H}_5$ ),  $\text{C}_{10}\text{H}_{14}\text{OS}$ , was distilled, yield 85.02%, b.p. 123.5°C/3 mm Hg,  $n^{20}_D$  1.5433,  $d_4^{20}$  1.0543. The other X were produced under similar conditions (below are given: R, Ar, the gross formula, yield %).

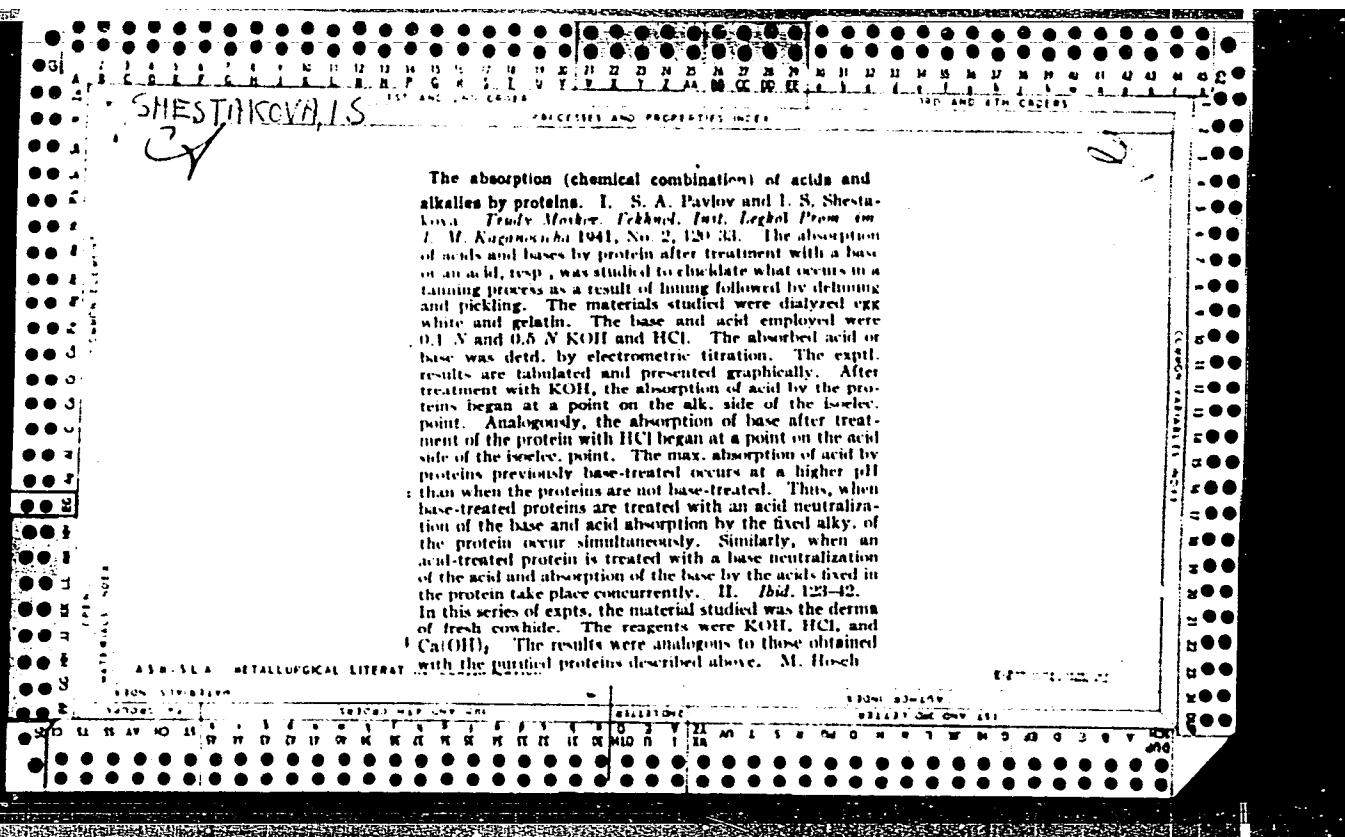
Card 3/4

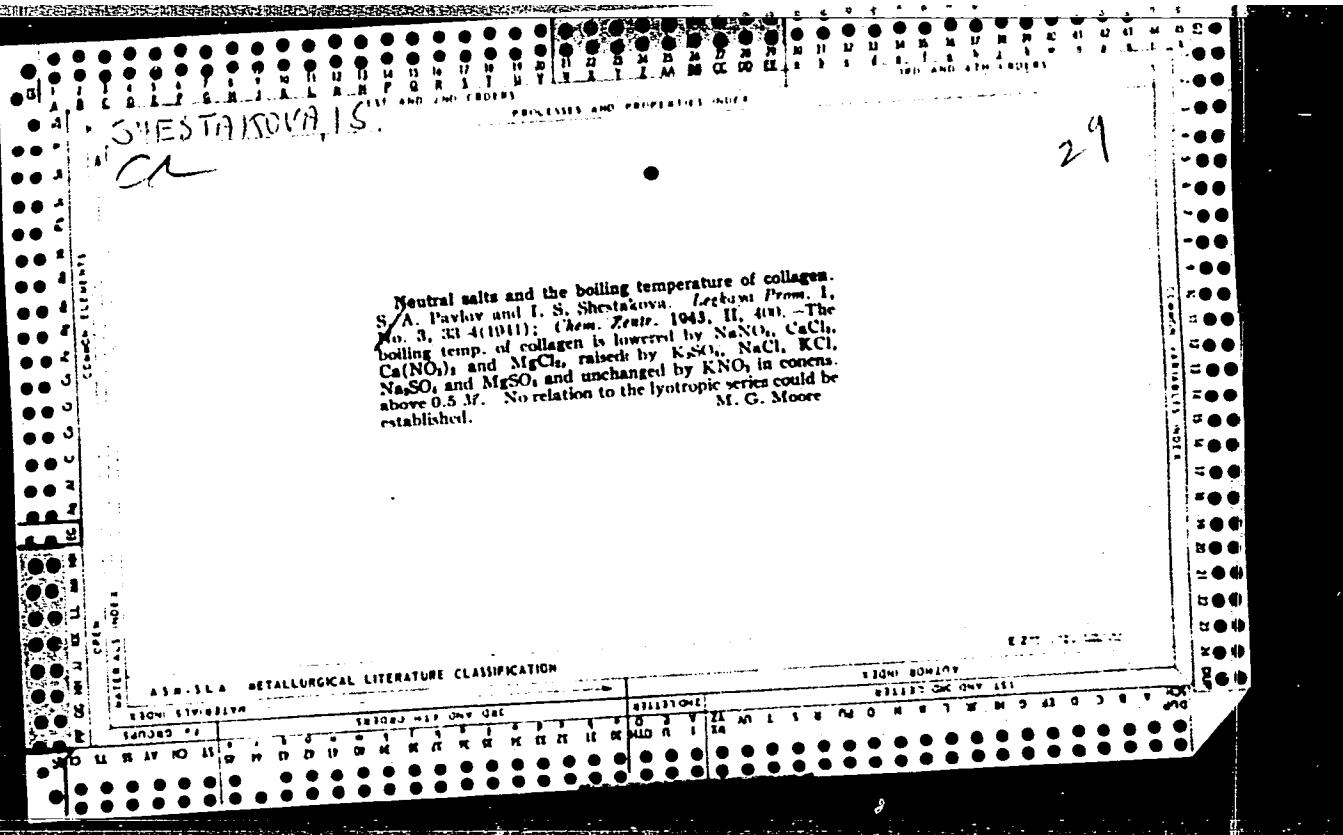
s/081/63/000/004/017/051  
B166/B186

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b.p. in  $^{\circ}\text{C}/\text{mm Hg}$ ,  $n_4^{20}\text{D}$ ,  $d_4^{20}$ ):  $\text{C}_4\text{H}_9$ ,  $\text{C}_6\text{H}_5$ ,  $\text{C}_{12}\text{H}_{18}\text{OS}$ , 97.20, 141.0 - 142.0/2,  
 $1.5313$ ,  $1.0118$ ;  $\text{C}_2\text{H}_5$ ,  $\text{o-CH}_3\text{C}_6\text{H}_4$  (Xa),  $\text{C}_{11}\text{H}_{16}\text{OS}$ , 97.19, 139.0/7,  $1.5394$ ,  
 $1.0352$ ;  $\text{C}_2\text{H}_5$ ,  $\text{3-CH}_3\text{-5-iso-C}_3\text{H}_7\text{C}_6\text{H}_3$ ,  $\text{C}_{12}\text{H}_{22}\text{OS}$ , 98.61, 166.0 - 167.0/12,  
 $1.5270$ ,  $1.0025$ . A weak stream of dry  $\text{SO}_2$  was bubbled for 1 - 2 min into a cooled ampoule containing 0.1 mole I and 0.1 mole  $\text{C}_2\text{H}_5\text{SH}$ ; this was allowed to stand for 3 - 4 hrs and then neutralized with dry  $\text{H}_2\text{CO}_3$ , giving IX ( $\text{R} = \text{C}_2\text{H}_5$ ,  $\text{Ar} = \text{C}_6\text{H}_5$ ) (IXa),  $\text{C}_{10}\text{H}_{14}\text{OS}$ , yield 68.5%, b.p.  $62 - 63.0^{\circ}\text{C}/3\text{ mm Hg}$ ,  $n_4^{20}\text{D}$   $1.5365$ ,  $d_4^{20}$  1.0436. A mixture of 0.2487 g IXa and an excess of 20% solution of  $\text{HgCl}_2$  in alcohol was allowed to stand for 2 - 3 hrs, methyl orange was added and 97.52% HCl was found by titration with 0.1 N NaOH. A stream of  $\text{SO}_2$  was bubbled for 0.5 - 1 min into a mixture of 0.1 mole II and 0.15 mole  $\text{C}_2\text{H}_5\text{SH}$ , after 20 - 25 min IX was separated by distillation ( $\text{R} = \text{C}_2\text{H}_5$ ,  $\text{Ar} = \text{o-CH}_3\text{C}_6\text{H}_4$ ),  $\text{C}_{11}\text{H}_{16}\text{OS}$ , yield 60.0%, b.p.  $74 - 75^{\circ}\text{C}/12\text{ mm Hg}$ ,  $n_4^{20}\text{D}$   $1.5250$ ,  $d_4^{20}$  1.0084, as well as Xa (in view of traces of  $\text{O}_2$ ), yield 3.1 g. For the previous communication see RZhKhim, 1961, 5Zh101. [Abstracter's note: Complete translation.]

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SHESTAKOVA, I.S.

CA

Chemical reactions which characterize the quality of the raw materials for leather and sheepskin. S. A. Pavlov and I. S. Shestakova. *Lekkaya Prom.* 7, No. 2, 21-3 (1947); *Chim. Zentr.* 1947, I, 1033-4. The increases in tyrosine, tryptophan, cystine, lactic acid, and aldehyde content were detd. after 1 to 20 days following slaughter. No essential changes could be detected in the hides during the first few days. M. G. Moore

AMERICAN DOCUMENTAL LITERATURE CLASSIFICATION

SHESTAKOVA, I. S.

23388 Deystivye tripsina, pepsina, kontsentrata i orizona na kollagen  
i gol'ye. Legkaya prom-st', 1949, No. 7, c. 23-24.  
Bibliogr: 5 Nazv.

SO: LETOPIS NO. 31, 1949.

38115. SHESTAKOVA, I. S.

V zashchity prioriteta sovetskikh issledovateley. (O primenenii pokazatlyva vyplavlyayemosti zhelatiny pri izuchenii protsessa myagcheniya. Kozhevenno-obuvnaya prom-st'). Legkaya prom-st', 1949, No 11, s. 22. - Bibliogr: 9 nazv

SHESTAKOVA, I.S.

"Factors Influencing the Character of Changes of Basic Albumins of Hides in the Fermentation Processes of the Leather Industry (Softening)." Sub 29 May 51, Moscow Technological Inst of Light Industry imeni L. M. Kaganovich.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

SHESTAKOVA, I.S.

Cleavage of collagen. Legkaya Prom. 12, No.2, 30-1 '52. (MIRA 4:12)  
(CA 47 no.19:10260 '53)

SHESTAKOVA, I.S.

CHERNOV, Nikolay Vladimirovich, prof.; ARONINA, Yu.N., dots.; GAYDAROV, L.P.,  
dots.; STRAKHOV, I.P., prof.; SHESTAKOVA, I.S., prof.; KOTOV, M.P.,  
prof., retsenzent; MIKHAYLOV, A.N., prof., retsenzent; RAZUMOVSKAYA,  
Ye.V., red.; KNAKNIN, M.T., tekhn.red.

[Chemistry of the leather and fur industries] Khimiia kozhevennogo  
i mekhanovogo proizvodstva. Pod boshchei red. N.V.Chernova. Moskva,  
Gos. nauchno-tekhn.izd-vo lit-ry po legkoi promyshl., 1957. 456 p.  
(Fur) (Chemistry, Technical) (MIRA 11:3)  
(Leather industry)

DENISOVA, A.A., inzhener; SHESTAKOVA, I.S., doktor tekhnicheskikh nauk,  
professor.

Tanning Russian leather with pine tannins. Leg.prom.17 no.3:19 Mr  
'57. (MLRA 10:4)

(Tannins)

SAVOL'YEV, A.I., inzh.; SHESTAKOVА, I.S., doktor tekhn. nauk, prof.;  
CHERNOV, N.V., doktor tekhn. nauk, prof.

Wearing out of hairs of furs. Leg. prom. 18 no.3:43-46 Mr '58.  
(Fur) (MIRA 11:4}

SHESTAKOV<sup>Y</sup>, I.S.

BALBEROVA, N.A., inzh.; SHESTAKOVA, I.S., doktor tekhn.nauk, prof.

Effect of liming reagents on albumins of hair follicles. Leg. prom.  
18 no.4:36-37 Ap '58. (MIRA 11:4)  
(Tanning)

CHERNOV, Nikolay Vladimirovich; ARONINA, Yuliya Naumovna; GAYDAROV, Leonid Petrovich; GOLOVTEYEVA, Alevtina Alekseyevna; STRAKHOV, Ivan Pavlovich; SHESTAKOVA, Irina Sergeyevna; YEGORKIN, N.I., prof., retsentent; KOTOV, M.P., prof., retsentent; PLEMYANNIKOV, M.N., red.; KNAKNIN, M.T., tekhn.red.

[Leather and fur technology] Tekhnologiiia kozhi i mekha.  
Pod obshchei red. N.V.Chernova. Moskva, Gos.nauchno-tekhn.  
izd-vo lit-ry po legkoi promyshl., 1959. 719 p. (MIRA 13:2)

1. Kafedra tekhnologii kozhi i mekha Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti (for Chernov, Aronina, Gaydarov, Golovteyeva, Strakhov, Shestakova).  
(Leather) (Fur)

MIRONOV, F.V., inzh.; SHESTAKOVA, I.S., prof., doktor tekhn.nauk

New developments in the investigation of willow-bark extracts.  
Kozh.-obuv.prom. 2 no.3:22-26 Mr '60. (MIRA 14:5)  
(Tanning materials)

MIRONOV, F.V., inzh.; SHESTAKOVA, I.S., prof.

Effect of the quality of willow bark tanning extracts on the  
properties of Russian leather. Kozh.-obuv.prom. 2 no.6:13-18  
Je '60. (MIRAI3:9)

(Tanning)

SHCHUKINA, N.G., kand.tekhn.nauk; SHESTAKOVA, I.S., doktor tekhnicheskikh  
nauk, prof.

Leather filling with a mixture of glucose and magnesium sulfate.  
Nauch.trudy MTILP no.23:29-34 '61. (MIRA 15:9)

1. Kafedra tekhnologii kozhi i mekha Moskovskogo tekhnologicheskogo  
instituta legkoy promyshlennosti.  
(Leather)

ULANOV, S. A., inzh.; CHERNOV, N. V., doktor tekhn. nauk, prof.;  
SHESTAKOVA, I. S., doktor tekhn. nauk, prof.

Viscosity of the solutions of vegetable and synthetic tanning  
materials. Kozh. obuv. prom. 4 no.10:19-22 0 '62.  
(MIRA 15:10)

(Tanning materials)

LEONOV, V.P., inzh.; SHESTAKOVA, I.S., doktor tekhn. nauk, prof.

Use of the chromatographic method for studying the products  
of oxidation of seal oil. Nauch. trudy MTILP 25:27-32 '62.  
(MIRA 16:8)

1. Kafedra tekhnologii kozhi i mekha Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

MINKIN, Ye.V., aspirant; SHESTAKOVA, I.S., doktor tekhn. nauk, prof.

Effect of a preliminary treatment of collagen on its  
dissolving. Nauch. trudy MTILP 25:52-57 '62.  
(MIRA 16:8)

1. Kafedra tekhnologii kozhi i mekha Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

GOLOVTEYEVA, A.A., kand. tekhn. nauk, dotsent; SHESTAKOVA, I.S., doktor tekhn. nauk, prof.; CHERNOV, N.V., doktor tekhn. nauk, prof.

Problems of the dissolving and reconstitution of collagen.

Izv. vys. ucheb. zav.; tekhn. leg. prom. no. 4:72-83 '63.

(MIRA 16:10)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.  
Rekomendovana kafedroy tekhnologii kozhi i mekha.

GOLOVTEYEVA, A.A., kand. tekhn. nauk, dotsent; SHESTAKOVA, I.S., doktor tekhn. nauk, prof.; CHERNOV, N.V., doktor tekhn. nauk, prof.

Problem of dissolving and reconstituting collagen. Izv. vys. ucheb. zav.; tekhn. leg. prom. no.5:62-67 '63. (MIRA 16:12)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.  
Rekomendovana kafedroy tekhnologii kozhi i mekha.

MINKIN, Ye.V., participant; SHESTAKOVA, I.S., doctor tekhn. nauk, prof.;  
BEGANOV, V.M., inzh.

Effect of the preliminary treatment of collagen on its dissolving.  
Report No.3. Nauch. trudy MTLIIP no.27:42-47 '63.

(MIRA 17:11)

1. Kafedra tekhnologii kozhi i mekha Moskovskogo tekhnologicheskogo  
instituta legkoy promyshlennosti.

MINKIN, Ye.V., aspirant; SHESTAKOVA, I.S., doktor tekhn. nauk, prof.;  
GGLOVINA, G.S., inzh.

Effect of the preliminary treatment of collagen on its dessolving.  
Report No.4. Nauch. trudy NTIIP no.27:48-53 '63.

(MIRA 17:11)

1. Kafedra tekhnologii kozhi i mekha. Dachnyekogo tekhnologicheskogo  
instituta legkoy promyshlennosti.

MINKIN, Ye.V., aspirant; SHESAKOV, I.S., doktor tekhn. nauk, prof.;  
MUSKINA, N.K., inzh.

Effect of the preliminary treatment of collagen on its dissolving.  
Report No.5. Nauch. trudy MTILP no.27:54-59 '63.

(MIRA 17:11)

1. Kafedra tekhnologii kozhi i mekha Moskovskogo tekhnologicheskogo  
instituta legkoy promyshlennosti.

MINKIN, Ye.V., aspirant; STESHOV, G.I., asp.nauk.; SUSTAKOVA, I.S., doktor  
tekhn. nauk, prof.; GOLOVTEYEVA, A., kand. tekhn. nauk, dotsent

Effect of the preliminary treatment of cellulose on its dissolving.  
Report No.6. Nauch. trudy MTILP no.2/1-3-66 '63.

(MIFI 17:11)

1. Kafedra tekhnologii kachchi i mekhanicheskogo tekhnologicheskogo  
instituta legkoy promyshlennosti.

GOLOVACHEVA, A.A., kand. tekhn. nauk, detsent; S. L. FAKOVA, I.S., doktor tekhn. nauk, prof.; CHENOV, N.V., doktor tekhn. nauk, prof.; KARPACHEV, P.S., inzh.

Effect of mechanical actions on the acceleration of dye penetration in tannin tanning. Nauch. trudy MTILP no.27:93-96 '97. (MIRA 17:11)

1. Kafedra tekhnologii kozhi i mekha Novosybskogo tekhnologicheskogo instituta legkoy promyshlennosti.

STRAKHOV, Ivan Pavlovich, prof.; ARONINA, Yuliya Naumovna, dots.;  
GAYDAKOV, Leonid Petrovich, dots.; GOLOVTEYEVA,  
Alevtina Aleksseyevna, dots.; CHEANOV, Nikolay Vladimirovich,  
prof.; SHESTAKOVA, Irina Sergeyevna, prof.; KOTOV, M.P.,  
prof., retsenzent; KLOCHKOV, S.A., inzh., retsenzent;  
GRACHEVA, A.V., red.; ILEMYARNIKOV, M.N., red.

[Chemistry and technology of leather and fur] Khimiia i  
tekhnologiiia kozhi i mekha. Moskva, Legkai*s* industriia,  
1964. 621 p. (MIRA 18:2)

SHESTAKOVA, I.S., prof., doktor tekhn. nauk

[Present-day concepts of the structure and properties of collagen] Sovremennye predstavleniya o stroenii i svoistvakh kollagena. Moskva, 1964. 147 p. (MIRA 18:5)

1. Moscow. Vsesoyuznyy zaochnyy institut tekstil'noy i legkoy promyshlennosti. Fakul'tet usovershenstvovaniya inzhenerov i rukovodchikov rabotnikov legkoy promyshlennosti.

KASPAR'YANTS, S.A., aspirant, doktor tekhn. nauk; SHESTAKOVA, I.S., prof.;  
POZDNYAKOVA, N.G., inzh.

Effect of the unhairing methods on the properties of the products  
of the solute of sheepskin derma. Nauch. trudy MTILP no.30:3-9 '64.  
(MIRA 18:6)

1. Kafedra tekhnologii kozhi i mekha Moskovskogo tekhnologicheskogo  
instituta lehkoy promyshlennosti.

KASPAR'YANTS, S.A., aspirant; SHESTAKOVA, I.S., doktor tekhn. nauk, prof.;  
SAFONOVА, N.V., inzh.

Effect of some electrolytes and enzymes on the synthetic fibers  
obtained from the products of the solute of sheepskin derma.  
Nauch. trudy MTIIP no.30:10-17 '64. (MIRA 18:6)

1. Kafedra tekhnologii kozhi i mekha Moskovskogo tekhnologicheskogo  
instituta legkoy promyshlennosti.

GIL'IAN, B.A. [Hil'tian, B.A.]; SIESTAKOVA, I.S., doktor tekhn. nauk

Effect of the raw materials and methods of surface-active agent synthesis on the quality of the scouring and degreasing of the wool cover of sheep pelts. Leh. ;rom. no.4:12-16 O-D '65.

(MIMA 19:1)

OVECHKIN, Ye.K.; DROZIN, N.N.; KUTSYNA, M.I.; SHESTAKOVA, L.A.;  
GERASIMENKO, Ye.I.; Prinimali uchastiye: YEREMEYEV, V.S.;  
KATERINKHENO, V.A.; VORONINA, L.A.

Scale formation in distillation columns of the soda manufacture.  
Zhur.prikl.khim. 34 no.9:1987-1995 S '61. (MIRA 14:9)  
(Distillation apparatus)

OVECHKIN, Ye.K.; GERASIMENKO, Ye.I.; GUSAKOVA, L.A.; Prinimali uchastiye:  
SHESTAKOVA, L.A.; KOTILEVSKIY, V.I.; VOROPAY, S.A.

Development of the technology of production of highly dispersed  
calcium carbonate. [Trudy] NIOKHM 15:19-63 '63.  
(MIRA 18:2)

KHRAMTSOVA, A.D., kand.med.nauk; SHESTAKOVA, L.B., vrach

Hygienic evaluation of various working routines of students at agricultural camps. Gig. i san. 26 no.5:102-105 My '61.

(MIRA 15:4)

1. Iz kafedry gigiyeny detey i podrostkov Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.  
(CHILDREN--EMPLOYMENT)

SHESTAKOVA, L. M.

Kok-Saghyz

Experiments of pupils with kok-saghyz. Est. v shkole no. 4, 1952

9. Monthly List of Russian Accessions, Library of Congress, November 1953, Uncl.

SHESTAKOVA, M. P.

My work practices. Tekst.prom. 15 no.11:50-51 N 55 . (MLRA 9:1)

1.Master pryadil'nogo tselka Smolenskogo l'nekombinata imeni  
Andreyeva. (Spinning)

*Shestakova, N.*

Precise method for determination of aluminum sulfate in  
solutions. N. Shestakova and L. Morozov. Novosti  
Neflyanof Tekhn. Neftipriborotka 1955, No. 3, 34-6.  
The electrometric method of Dranovskii (cf. C.A. 43, 972d)  
was adapted for the automatic titration of Al sulfate working  
soln. in the manuf. of alumina. A. P. Kotloby

*Chem 2*

*PM mk*

BATSANOV, S.S.; SHESTAKOVA, N.A.; KHRIPIN, L.A.

Tin chalcogen chlorides. Dokl. AN SSSR 152 no.3:606-608 S '63.  
(MIRA 16:12)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.  
Predstavлено академиком I.I.Chernyayevym.

L 12464-65 EWG(j)/EWT(m)/EPF(c)/EPR/EWP(t)/EWP(b) Pr-4/Ps-4 AS(mp)-2/  
RAEM(e)/RAEM(c)/ESD(gs)/ESD(t) JD/JG

ACCESSION NR: AP4048431

S/0181/64/006/011/3467/3468

AUTHOR: Shestakova, N. A.; Gurevich, M. A.; Marina, L. I.;  
Nashel'skiy, A. Ya.

B

TITLE: Micrographic investigation of gallium-phosphide crystals

SOURCE: Fizika tverdogo tela, v. 6, no. 11, 1964, 3467-3468

TOPIC TAGS: compound semiconductor, gallium phosphide crystal, single  
crystal growth, crystal etching, crystal structure defect, crystal  
dislocation, twin crystal

ABSTRACT: The microstructure of gallium-phosphide crystals has been  
studied using a new etching formulation to reveal structural differ-  
ences between the crystals grown by different methods (from stoichio-  
metric or nonstoichiometric melts and from vapor phase). The practical  
importance of gallium phosphide was emphasized as one of the most  
promising IIIBV-compound semiconductors. The etching formulation  
contained trivalent iron ion as an oxidant and hydrochloric acid as  
the solvent for gallium oxide. Micrographs of the etched acicular or

Card 1/2

L 12464-65

ACCESSION NR: AF4048431

lamellar crystals revealed not only dislocations, but also other structure defects such as bands or spirals of growth. Dislocation etch pits were described as triangular pyramids uniformly distributed in most lamellar crystals and clustered around the boundary between two differently oriented regions in acicular crystals. Two differently oriented regions were also observed in lamellar crystals. These observations led to the conclusion that some of the crystals grown by either method were twins or contained differently oriented inclusions. Orig. art. has: 2 figures.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proektnyy institut reakomstallicheskoy promyshlennosti, Moscow (State Design and Planning Scientific Research Institute of the Rare Metals Industry)

SUBMITTED: 15May64

ENCL: 00

SUB CODE: SS

NO REF SGV: 001

OTHER: 004

ATT PRESS: 3126

Card 2/2

SHALTYKO, G.Ye., Prinimali uchastiye: KULESHOVA, A.A.; SHESTAKOVA, N.A.  
SOKOLOVA, Z.N.; BOBROV, V.V.

Increase of the toxicity of shale tar collected in a compartment  
oven main with the purpose of using it for antisepting treating of  
wood. Zhur.prikl.khim. 34 no.10:2362-2364 O '61. (MIRA 14,11)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta.  
(Wood preservatives) (Coal tar)

L 11268-65 EWT(m)/EWP(t)/EWP(b) EJP(c)/AS(mp)-2/ASD(a)-5/RAEM(a)/ASD(m)-3/SSD/  
RAEM(c)/~~EWT~~/~~EWP~~/~~ASD~~(t) AP  
ACCESSION NR: AP4046052 S/0070/64/009/005/0752/0754

AUTHORS: Shestakova, N. A.; Gurevich, M. A.; Ivleva, V. S.

TITLE: Metallographic investigation of structural defects (dislocations) of indium antimonide single crystals

SOURCE: Kristallografiya, v. 9, no. 5, 1964, 752-754

TOPIC TAGS: indium antimonide, single crystal, dislocation density, stoichiometry, crystal growth, semiconductor material, structural dislocation, metallography

ABSTRACT: A polished section was prepared, coinciding with the (111) plane accurate to better than 3°, with the orientation of the single crystals determined by the Laue method. This was followed by mechanical polishing of the investigated surface and etching in a CP-4A acid mixture ( $\text{CH}_3\text{COOH}:\text{HF}:\text{HNO}_3 = 3:3:5$ ) for 15--20 seconds at room temperature. This disclosed not only the dislocation etch

Card 1/3

L 11268-65

ACCESSION NR: AP4046052

O

pits but also the small-angle boundaries, mosaic blocks, twins, grain boundaries, and second-phase inclusions. The dislocation density on individual single-crystal samples of InSb, obtained by the Czochralski and by the zone-melting method, ranges from  $2.0 \times 10^2$  to  $1.1 \times 10^3$  to  $1 \times 10^4$  to  $1.0 \times 10^6 \text{ cm}^{-2}$ , respectively. The dislocations in crystals obtained by zone melting are highly uneven along the section of the ingot, and the dislocation density is one order of magnitude higher than in crystals obtained by the Czochralski method. Another feature of the former crystals is the presence of small-angle boundaries of different widths and lengths. It was also found that the structure of single-crystal ingots drawn from a melt containing an excess of one of the components differs greatly from the structure of ingots obtained from melts of stoichiometric composition. This is possibly due to the radical change in the crystallization front. It is stated in conclusion that the use of metallographic procedures for the investigation of semiconductor single crystals discloses many important structural features con-

Card

2/3

L 11268-65

ACCESSION NR: AP4046052

nected with their growth conditions. Orig. art. has: 3 figures.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy institut  
redkometallicheskoy promyshlennosti (State Scientific Research  
and Design Institute of the Rare Metal Industry)

SUBMITTED: 04Jul63

ENCL: 00

SUB CODE: SS NR REF Sov: 000

OTHER: 004

Card

3/3

SHESTAKOVA, N.A.; GUREVICH, M.A.; MARINA, L.I.; NASHEL'SKIY, A.Ya.

Metallographic study of gallium phosphide crystals. Fiz. tver. tsel'a  
6 no.11:3467-3468 N 164. (MIRA 18:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy in-  
stitut redkometallicheskoy promyshlennosti, Moskva.

69282

SOV/123-59-22-91510

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 22, p 22 (USSR)

15-8120 25.2000

AUTHOR: Shestakova, N.I.

TITLE: The Practice of Applying Plastics at the "Elektrostanok" Plant

PERIODICAL: Byul. tekhn.-ekon. inform. (Sovnarkhoz Khar'kovsk. ekon. adm. r-na),  
1958, Nr 3, pp 13 - 14

ABSTRACT: The author reports that at the "Elektrostanok" Plant various machine parts and assemblies for electric devices are made of plastics.<sup>1</sup> The main sorts of material used for this purpose are: the phenolaldehyde plastic, grades K 17-2, K 21-22, K 18-2, press materials on the base of modified phenol resins with organic and mineral fillers of the K 78-51 grade, modified phenol press materials with caoutchouc filler additives, possessing increased physical-mechanical properties, glass plastics and epoxide resins. The nomenclature of articles manufactured of plastics includes 120 items. The articles are pressed in the plastics shop. The press powder is pelleted and preheated by high-frequency currents. A number of measures is planned to introduce plastics still further and to extend their field of application at the factory. S.N.K.

Card 1/1

SHESTA KOVA, N.D.

CA

**Removal of hydrogen sulfide from gasoline distillates by means of dolomite.** D. A. Strom and N. M. Shetakawa, *Nefnyunnoe Khoz.* 24, No. 3/4, 68-70 (1949).—The dolomite lumps were calcined in a gas flame at 800°-900° and blown with air to obtain a chalklike mass which was crushed to 2-4-mm. particle size and then screened for removal of fines. The granules were then packed into the reaction tube, and the latter was immersed in water to effect hydration. The hydrated material retained some of its activity after 3 regenerations, but its internal structure deteriorated owing to the swelling action of the condensing steam during regeneration. It is suggested that dolomite filters be installed in stills to remove H<sub>2</sub>S from the gasoline vapors before it oxidizes to elementary S. B. C. M.

APPENDIX METALLURGICAL LITERATURE CLASSIFICATION

8341 834177

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001549310018-9"

SOV/81-59-16-58557

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 418 (USSR)

AUTHORS: Shestakova, N.M., Toroptsev, N.G.

TITLE: Improvement of the Method of Determining Chloride Salts in Petroleum

PERIODICAL: Novosti neft. tekhn. Neftepererabotka, 1958, Nr 8, pp 26-28

ABSTRACT: In connection with the insufficiently accurate, very laborious and time-consuming determination of chlorides in petroleum according to State Standard GOST 2401-47 a new method of this analysis has been developed. To 25 ml of petroleum, 10 ml of gasoline of direct distillation, 15-30 ml acetone, 250 ml of boiling distilled water are added and mixed for 5 min on a mechanical rocking device with 120 shakings per min. An aqueous extract is separated, filtered through a paper filter in the presence of  $H_2S$ , boiled to a negative test with lead paper, acidified by 0.2 n  $HNO_3$ , and titrated by a solution of mercury nitrate of 0.01 n with diphenylcarbazide as an indicator. Under described conditions a single extraction extracts 99.6% of chlorides, even if their content in petroleum is  $\sim 27,000$  mg/l, and the titration with mercury nitrate yields more exact results

Card 1/2

SOV/81-59-16-58557

Improvement of the Method of Determining Chloride Salts in Petroleum

than with  $\text{AgNO}_3$ , especially for petroleum with a low chloride content. The admissible discrepancies in parallel determinations at a chloride content of 50-10,000 mg/l do not exceed 5-100 mg/l, respectively.

A. Shakhov.

Card 2/2

ACC NR: AP7000914

SOURCE CODE: UR/0318/66/000/011/0049/0049

AUTHOR: Shestakova, N. M.; Toporova, Z. P.ORG: BAShNIINPTITLE: Reagents for a rapid method of determination of barium and zinc  
in oil additives or oils with additives

SOURCE: Neftepererabotka i neftekhimiya, no. 11, 1966, 49

TOPIC TAGS: lubricant additive, barium compound, zinc compound,  
analytic ~~determination~~ chemistry

ABSTRACT: The compositions and preparation of solutions for a rapid method of determination of zinc and barium in oil additives and in oils with additives are presented. The method was developed at the Bashkiran Scientific Research Institute of Petroleum Processing (BAShNIINP) and was reported previously (Neftepererabotka i neftekhimiya, no. 5, 1966). The preparation of the following solutions is given: 1) a standard solution of Trilon B [EDTA]; 2) a standard zinc solution; 3) buffer solution A of ammonium hydroxide and ammonium chloride with pH=10; 4) buffer solution B of the same reagents and with the same pH, but containing EDTA titrated magnesium chloride; 5) 20% solution of

Card 1/2

ACC NR: AP7000914

ammonium sulfate; 6) 3% solution of in addition, pure benzene and  
butanol are mentioned. [WA-28]

SUB CODE: 1107, 21/ SUBM DATE: none/ ORIG REF: 001

Card 2 / 2

ACC NR: AP7000914

SOURCE CODE: UR/0318/66/000/011/0049/0049

AUTHOR: Shestakova, N. M.; Toporova, Z. P.

ORG: BAShNIINP

TITLE: Reagents for a rapid method of determination of barium and zinc in oil additives or oils with additives

SOURCE: Neftepererabotka i neftekhimiya, no. 11, 1966, 49

TOPIC TAGS: lubricant additive, barium compound, zinc compound, analytic determination chemistry

ABSTRACT: The compositions and preparation of solutions for a rapid method of determination of zinc and barium in oil additives and in oils with additives are presented. The method was developed at the Bashkiran Scientific Research Institute of Petroleum Processing (BAShNIINP) and was reported previously (Neftepererabotka i neftekhimiya, no. 5, 1966). The preparation of the following solutions is given: 1) a standard solution of Trilon B [EDTA]; 2) a standard zinc solution; 3) buffer solution A of ammonium hydroxide and ammonium chloride with pH=10; 4) buffer solution B of the same reagents and with the same pH, but containing EDTA titrated magnesium chloride; 5) 20% solution of

Card 1/2

ACC NR: AP7000914

ammonium sulfate; 6) 3% solution of in addition, pure benzene and  
butanol are mentioned. [WA-28]

SUB CODE: 1107, 21/ SUBM DATE: none/ ORIG REF: 001

Card 2/2

MASAGUTOV, R.M.; SHESTAKOVA, N.M.; MIKHAYLOVA, M.G.; GILYAZEV, N.G.;  
ZAITOVA, A.Ya.; VOLKOVA, L.I.

Effect of temperature during calcination on the mechanical  
strength of catalysts. Khim. i tekhn. topl. i masel 4 no.1:  
(MIRA 12:1)  
69-71 Ja '59.

1. Bashkirskiy nauchno-issledovatel'skiy institut neftyanoy  
promyshlennosti.  
(Catalysts)

MASAGUTOV, R.M.; SHESTAKOVA, N.M.; MIKHAYLOVA, M.G.; GILYAZEV, N.G.;  
ZAITOVA, A.Ya.; VOLKOVA, L.I.

Effect of the firing temperature of a catalyst during preparation  
on its mechanical strength. Trudy Bash NII NP no.3:166-170 '60.  
(MIRA 14-8)

(Catalysts) (Cracking process)

L 45722-66 EW (a)/E/FWP(t)/EIT LCP(L) 10/01  
ACC NR: AP6026499 (A)

SOURCE CODE: UR/0318/66/000/005/0016/0018

AUTHOR: Shestakova, N. M.; Toporova, Z. P.

29

ORG: BashNIINP<sup>N</sup>

B

TITLE: Rapid method of determining barium and zinc in additives and oils with additives

SOURCE: Neftepererabotka i neftekhimiya, no. 5, 1966, 16-18

TOPIC TAGS: barium, zinc, calcium, quantitative analysis

ABSTRACT: In order to simplify and accelerate the determination of barium and zinc in additives and oils containing additives, a cold extraction method was used to extract the metal-containing components; it consisted in agitating the benzene solution of the sample with HCl (manually or mechanically) for 15 min and washing twice with water. The metals were then determined by complexometric titration. The data showed a complete extraction of the metal-containing components. The procedures for determining barium in the absence of zinc and zinc and barium together are described. The method is rapid and does not require any complex equipment. It is thought to apply to calcium-containing products as well. Orig. art. has: 1 table.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 002

Card 1/1 ULR

UDC: 665.637.6-4:546.431:543.06

Shestakova, N.P.

✓ Potentiometric titration of microquantities of soluble fluorides. Sh. T. Talipov, I. L. Teodurovich, and N. P. Shestakova. Trudy Nauchnoi. Gosudarst. Univ. (Tezisy dokladov na konf.) Leningrad, No. 4, 83-84(1962). An ad. soln. of  $\text{NaF}$  was heated at 70-80° and a known vol. (an excess) of 0.0043M  $\text{Ca}(\text{NO}_3)_2$  was added. After cooling, the soln. was dild. with an equal vol. of alc., and one drop of 0.01%  $\text{K}_4\text{Fe}(\text{CN})_6$  soln. and an excess of solid  $\text{NH}_4\text{Cl}$  were added. The beaker was placed in an app. contg. a Pt electrode, which was also a stirrer, and a calomel reference electrode with a salt bridge. The soln. was stirred 1 min., let stand 1 min., and the e.m.f. was detd., then the excess  $\text{Ca}^{++}$  was titrated with 0.500M  $\text{K}_4\text{Fe}(\text{CN})_6$  according to the equation:  $2\text{NH}_4^+ + \text{Ca}^{++} + [\text{Fe}(\text{CN})_6]^{4-} \rightleftharpoons \text{Ca}(\text{NH}_4)_2[\text{Fe}(\text{CN})_6]$ . F (0.019-1.60 mg.) was detd. in this way. Addn. of 10 ml. of HOAc (to 0.380 mg. F) or of 3 mg.  $\text{SiO}_2$  or 0.6 mg.  $\text{Na}_2\text{SiO}_3$  with 2 drops of methyl red (to 0.061 mg. F) did not interfere.

Malcolm Anderson

✓

(2)

DULITSKIY, S.O., professor

"Training of children! N.P.Shestakova. Reviewed by S.O.Dulitskii.  
Pediatriia no.3:90 My-June 1990  
(CHILDREN--MANAGEMENT) (SHESTAKOVA, N.P.)  
(MLRA 8:10)

ATCHARAROV, B.A.; NIKULICHEVA, V.S.; SHESTAKOVA, N.P.

State of some vegetative cardiac reflexes in lead poisoning. Trudy  
Inst.kraev.pat. AN Kazakh.SSR 4:64-70 '56. (MIRA 10:3)  
(LEAD POISONING) (HEART)

ATCHABAROV, B.A.; SHESTAKOVA, N.P.

Influence of typological peculiarities of the higher nervous activity  
and of other nonspecific factors on the rise of lead intoxication.  
Trudy Inst. kraev. pat. AN Kazakh. SSR 8:124-129 '60. (MIRA 14:5)  
(NERVOUS SYSTEM) (LEAD POISONING)

ATCHABAROV, B.A., kand.med.nauk; MAKASHEV, K.K., kand.med.nauk; SHESTAKOVA,  
N.P.

Fate of lead introduced into the organism. Vest.AN Kazakh.SSR 17  
no.5:48-55 My '61. (MIRA 14:6)  
(LEAD IN THE BODY)

MANANNIKOVA, Nadezhda Vasil'yevna; BULYGINA, Yelizaveta Aleksandrovna;  
ROMANOVSKAYA, Sof'ya Yul'yevna; SHESTAKOVA, Natal'ya Petrovna;  
SHAPIRO, Sof'ya L'vovna; SHISHLYANNIKOVA, Mariya Abramovna;  
NOVOSELOVA, Raisa Semenovna; POPOVA, G.F., red.; YUKHNOVSKAYA,  
S.I., red.; KOKIN, N.M., tekhn. red.

[Course of lectures for gravidas and mothers] Kurs lektsii  
dlia beremennykh i materei. 7 lektsii. 5 izd. Moskva, Medgiz,  
1963. 238 p. (MIRA 16:7)

(PRENATAL CARE) (WOMEN--HEALTH AND HYGIENE)  
(INFANTS--CARE AND HYGIENE)

KORBANOVA, Z.N.; SLUKIN, A.D.; SHESTAKOVA, O.G.

Use of polystyrol resins in the mixture formula for  
protective rubbers. Kauch.i rez. 21 no.11:51-52 N '62.

(MIRA 15:12)

1. Voronezhskiy shinnyy zavod.  
(Resins, Synthetic) (Rubber coatings)

L 25322-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AR5003013

S/0081/64/000/020/S083/S083

SOURCE: Ref. zh. Khimiya, Abs. 20S521

AUTHOR: Slukin, A. D.; Yukel'son, I. I.; Shestakova, O. G.; Korbanova, Z. N.; Fedotova, L. V.

TITLE: Polyethylphenylene ethyl as an ingredient in rubber mixtures

CITED SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 2, 1963, 136-139

TOPIC TAGS: rubber mixture, protective coating, plasticizer, vulcanizer, rubber vulcanization, rubber property, polyethylphenylene ethyl/ protective coating SKS-30 ARKM, PN-6 oil

TRANSLATION: A polymer of polyethylphenylene ethyl (10-25 parts by weight) was used as a plasticizer in the preparation of protective coatings made of SKS-30 ARKM, containing 100 parts by weight rubber and 50 parts by weight carbon black HAF. The industrial properties of the mixtures are analogous to the properties of mixtures with PN-6 oil. With small plasticizer contents, the tensile strength of

Card 1/2

L 25322-65

ACCESSION NR: AR5003013

rubbers with PN-6 oil is higher than that of rubbers with polyethylphenylene ethyl; in proportion to increase in plasticizer content, the strength of vulcanizers with PN-6 falls more than the strength with polyethylphenylene ethyl. Polyethylphenylene ethyl also increases the elasticity and the dynamic properties of vulcanizers. I. Krylova.

SUB CODE: CC, OC

ENCL: 00

Card 2/2

L 12809-63

EPF(c)/EWP(j)/EWT(m)/BDS ASD/AFFTC Pr-4/Pc-l RM/MM

S/0138/63/000/004/0001/0005

ACCESSION NR: AP3001425

AUTHCR: Shatalov, V. P.; Gostev, M. M.; Krylova, I. A.; Artemov, V. M.;  
Shestakova, O. G.; Korbanova, Z. N.; Slukin, A. D.; Sotnikov, I. F.; Torbinskiy,  
A. N.

TITLE: Low-temperature polymerized butadiene-styrene rubber with a carbon black-  
oil filler

SOURCE: Kauchuk i rezina, no. 4, 1963, 1-5

TOPIC TAGS: polymerization, carbon black filler, oil filler, butadiene rubber,  
styrene rubber

ABSTRACT: Studies were conducted on the preparation of stable dispersions of  
various types of carbon black, with and without surface-active substances. The  
latter included potassium rosinate, Leukanol, and ammonium caseinate. The dis-  
persions were prepared in ball mills, in jet mills, and by means of a vibrator.  
The kinetic and aggregate stability of the dispersions were determined. Potassium  
rosinate and Leukanol produced dispersions which did not separate for several days.  
The oil emulsion was prepared with the aid of stearic acid and triethanolamine.  
The carbon black dispersion was mixed with the latex of butadiene-styrene rubber.

Card 1/2

L 12539-63

ACCESSION NR: AP3001425

and into it was introduced the oil emulsion. The coagulation of this mass was best achieved by pouring it into a 9% solution of sodium chloride containing 7% sulfuric acid at 40°C. It was found that the introduction of carbon black into the latex previous to coagulation had a favorable effect on the technological properties of the vulcanizates and permitted the processing of rubbers with a higher molecular weight. The KhAF brand of carbon black and the use of potassium rosinate as emulsifier produced vulcanized rubbers of superior strength and abrasive properties, with a higher modulus of elasticity and with a better adhesion to the cord. Pasyukov, N. V., Bondarev, A. Ye., and Gergasevich, T. V. participated in the work. Orig. art. has: 3 tables.

ASSOCIATION: Voronezhskiy zavod sinteticheskogo kauchuka i Voronezhskiy shinnyy zavod (Voronezh Synthetic Rubber Plant and Voronezh Tire Plant)

SUBMITTED: 00

DATE ACQ: 30May63

ENCL: 00

SUB CODE: 00

NO REF SOV: 002

OTHER: 002

Card 2/2

YUKEL'SON, I.I.; SLUKIN, A.D.; KORBANOVA, Z.N.; SHESTAKOVA, O.G.; FEDOTOVA, L.V.

Investigating polyarylene alkyls as ingredients of a rubber  
compound. Kauch. i rez. 22 no.9:2-4 S '63. (MIRA 16:11)

1. Voronezhskiy shinnyy zavod i Voronezhskiy tekhnologicheskiky  
institut.

ACCESSION NR: AP4026365

S/0138/64/000/003/0019/0021

AUTHORS: Zalukayev, L. P.; Pivnev, V. I.; Reznikov, V. S.; Shestakova, O. G.; Korbanova, Z. N.; Buryagina, A. S.

TITLE: A study of thermal aging in protector rubbers made from natural rubber by nuclear magnetic resonance

SOURCE: Kauchuk i rezina, no. 3, 1964, 19-21

TOPIC TAGS: thermal aging, rubber, nuclear magnetic resonance, magnetic field, aging coefficient, oxidation kinetics

ABSTRACT: The nuclear magnetic resonance (NMR) method is briefly described. The phenomenon involves magnetic moments acquired by the nuclei of element atoms placed in a constant magnetic field of magnitude  $H_0$ . For a proton-nucleus atom of hydrogen, the orientation energy is determined from

$$\Delta E = 2\mu H_0$$

Card 1/2

ACCESSION NR: AP4026365

and the frequency from

$$\hbar\nu_0 = 2\mu H_0.$$

This method has been used to determine the thermal aging of 2-mm thick protector rubber specimens with various antioxidants at 100, 120, and 140°C temperatures in atmospheric air. The amplitude change  $\Delta A$  of an arbitrary NMR signal is represented graphically as a function of time and temperature. At 120 and 140°C temperatures a plateau is observed in the curves for aging times of 90 and 30 hours respectively. A table is presented of aging coefficients, comparing the oxidation kinetics of eleven specimens by the NMR method and a mechanical method. The NMR method is shown to be a useful means for investigating thermal aging in rubber. Orig. art. has: 3 formulas, 2 tables, and 1 figure.

ASSOCIATION: Voronezhskiy shinnyy zavod (Voronezh Tire Works); Voronezhskiy Gosudarstvenny universitet (Voronezh State University)

SUBMITTED: 00

DATE ACQ: 17Apr64

ENCL: 00

SUB CODE: MT

NO REF Sov: 002

OTHER: 000

Card 2/2

L 4281-66 ENT(m)/EPF(c)/EPF(j)/T  
ACCESSION NR: AF5024104

RM UR/0138/65/000/009/0006/0008  
678.048/049:546/547.07.004.12

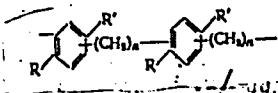
AUTHOR: Yukel'son, I. I.; Sjukin, A. D.; Sukhov, V. S.; Korbanova, Z. N.;  
Fedotov, L. V.; Shestakova, O. G.

TITLE: Study of nitro derivatives of polyarylenealkyls as ingredients of rubber blends

SOURCE: Kauchuk i rezina, no. 9, 1965, 6-8

TOPIC TAGS: nitration, antioxidant additive, chain polymer, rubber chemical

ABSTRACT: The article deals with the synthesis of nitro derivatives of carbon chain aliphatic-aromatic polymers of the type



and their testing as softeners and antiaging agents for synthetic rubbers. A method of synthesis of these nitro derivatives, involving nitration of the polymers with mixtures of

Card 1/2

L 1251.66  
ACCESSION NR: AP502410<sup>i</sup>

nitric and sulfuric acid at 30 - 40C, was developed at the Voronezh shinnyy zavod (Voronezh Tire Plant). Polyphenyleneethyls (containing 2.4, 3.0, 4.1, and 5.4% nitrogen) and polyethylphenyleneethyls (4.3% nitrogen) were synthesized and tested in tread stocks with an SKS-30ARKM base containing PM-70 carbon black and with an NK base containing a combination of channel gas black and PM-70 black. In mixtures based on SKS-30ARKM, addition of the nitro derivatives markedly increases the hardness and the modulus at 300% elongation, and causes a certain increase in the strength of the vulcanizates. In mixtures based on NK, the synthesized products raise the modulus at 300% elongation (by 10 - 20%) and the hardness. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Voronezhskiy tekhnologicheskiy institut (Voronezh Technological Institute); Voronezhskiy shinnyy zavod (Voronezh Tire Plant) <sup>445</sup>

SUBMITTED: 00

ENCL: 00 SUB CODE: MT, GC

NO REF SOV: 003

OTHER: 000

Card 2/2 DP

L 05648-67 EWT(m)/EWP(j) IJP(c) RM  
ACC NR: AP6026759 (A)

SOURCE CODE: UR/0138/66/000/005/0003/0004  
Shes (2)

AUTHOR: Gostev, M. M.; Bryantsev, V. V.; Kovrzhko, L. F.; Sotnikov, I. F.;  
Kurbanova, Z. N.; Lafyninga, S. L.; Shatkov, O. G.  
ORG: Voronezh Synthetic Rubber Plant (Voronezhskiy zavod sinteticheskogo kauchuka);  
Voronezh Tire Plant (Voronezhskiy shinnyy zavod)

TITLE: Oil-extended stereoregular cis-1,4-butadiene rubber 15

SOURCE: Kauchuk i rezina, no. 5, 1966, 3-4

TOPIC TAGS: polybutadiene, filler, plasticizer, vulcanization

ABSTRACT: The conditions of preparation of oil-extended cis-1,4-polybutadiene and the relationship between the methods of extending the rubber and the properties of the rubber mix and vulcanizates were studied. Aromatic PN-6 and tall oil were used as plasticizers and fillers. The properties of the oil-extended rubbers were studied in a special tread mix of the composition (in pts. by wt.): cis-1,4-polybutadiene 100; sulfur 1.6; Santocure 0.9; zinc oxide 3.0; product 401ONA 0.5; Antilux 1.0; MnAF-type carbon black (Vulcan 3) 60.0; oil 13.0. The workability of the mixes was determined from their millability. The tread mixes were vulcanized at 143°C. Rubbers obtained by introducing the oil at the solution stage displayed a better workability than those prepared by adding the oil in the mixer; their tensile strength and resistance to crack propagation were also higher. It is concluded that the good workability of oil-exten-

UDC: 678.762.2(+665.583).004.12

Card 1/2

L 05648-67

ACC NR: AP6026759

ed rubbers permits the preparation of tread mixes from 100% cis-1,4-polybutadiene.

Orig. art. has: 1 table.

SUB CODE: 11/ SUBM DATE: 06Nov65/ ORIG REF: 002/ OTH REF: 010

Card 2/2 egr

SHESTAKOVA, R.A.

Simplified methods of determining discharges of mountain rivers.  
(MIRA 15:12)  
Trudy GGI no.98:147-164 '62.  
(Soviet Central Asia—Stream measurements)

YEGOROV, K.D., kand.ekon.nauk; TROSHINA, A.P.; KOVALEV, P.P.; NOVIKOVA,  
A.A.; LAGUTINA, M.V.; VOLNINA, N.A.; SHESTAKOVA, R.V.; AKIMCHENKO, O.Ye.; KULEBAKIN, V.S., akademik, red.; VEYTS, V.I.,  
red.; BUTENKO, A.F., kand.filosof.nauk, red.; RYBINSKIY, M.I.,  
red.; CHASHNIKOVA, M.V., red.; NIZHNYAYA, S., red.; VOSKRESENSKAYA, T.,  
red.; CHEKHUTOVA, V., red.; RKLITSKAYA, A.D., red.; CHEPELEVA, O.,  
tekhn.red.

[Works of the State Commission for the Electrification of Russia;  
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(MIRA 14:2)  
1960. 306 p.

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(Electrification)

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Glycogen and alkaline phosphatase in exudate leucocytes in  
siloxan diabetes. Probl. endokr. i form. li no.4/109-112  
(MIRA 18:ii)  
Jl. Ag '65.

I. Kafedra patologicheskoy fiziologii (zav.- prof. M.M. Pavlov)  
I Leningradskogo meditsinskogo instituta imeni Pavlova.

L 10426-67 E-T(m)  
ACC NR: AT6031774

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42

AUTHOR: Burdin, K. S.; Parkhomenko, I. M.; Petrushevich, Yu. M.; Shestakova, S. V.

ORG: none

TITLE: Use of a chemiluminescent method to investigate the protective action mechanism of certain substances and their mixtures

SOURCE: Moskovskoye obshchestvo ispytateley prirody. Trudy. Otdel biologicheskij, v. 16, 1966. Slobodnoradikal'nyye protsessy v biologicheskikh sistemakh (Processes of free radicals in biological systems), 19-21

TOPIC TAGS: antiradiation drug, recombination luminescence, chemiluminescence, oxidation kinetics, oxidation inhibition, antibiotic

ABSTRACT: In earlier experiments on gamma irradiated SOTs and human amnion cells the action mechanism of the radioprotectors (veronal, medinal, evipol, AET, propylgallate, gramicidin, vinylpyrrolidone and pyridine) and the potentiated effects produced by combining radioprotectors appear to be related to their interaction with radicals during oxidation. The present study investigated the effect of the radioprotectors on recombined luminescence of radicals appearing during electrochemical oxidation of tyrosine in a 0.11 M solution of  $\text{Na}_2\text{SO}_4$ . Intensity of luminescence was determined with an FEU-42 photomultiplier.

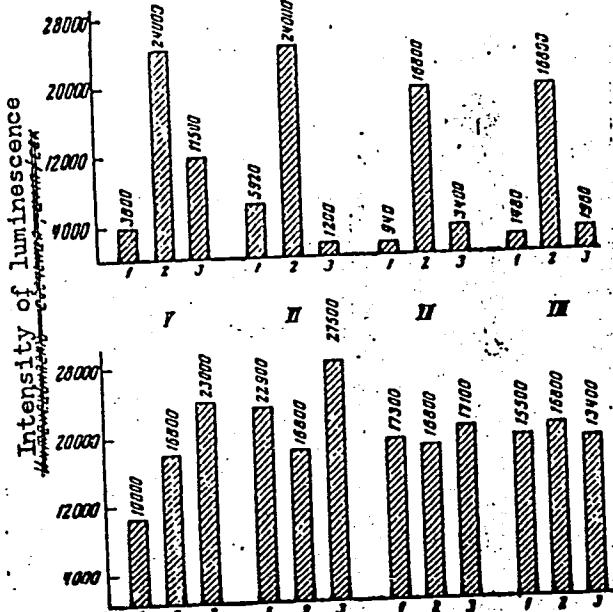
Card 1/3

L 10426-67

ACC NR: AT6031774

Effect of protective substances on  
intensity of tyrosine chemiluminescence.

I—veronal; II—medinal; III—evipol;  
IV—AET; V—propylgallate; VI—gramicidin;  
VII—vinylpyrrolidone; VIII—pyridine.  
1—natural luminescence of tested  
substances in an electrolytic cell in a  
0.11M solution of  $\text{Na}_2\text{SO}_4$ ; 2—  
chemiluminescence of tyrosine in a 0.11 M  
solution of  $\text{Na}_2\text{SO}_4$ ; 3—chemiluminescence  
of tyrosine with the addition of the  
tested substances.



Card 2/3

L 10426-67  
ACC NR: AT6031774

Findings show that AET, medinal, veronal and evipol quench chemiluminescence of radicals formed during tyrosine electrolysis; these apparently act as antioxidants. On the other hand, gramicidin and propylgallate increase chemiluminescence probably by increasing the number of radical recombinations. In testing the radioprotector effectiveness of the preparations on gamma irradiated cells, the barbituric acid derivatives (veronal and evipol) offered little protection. Pyridine increased the survival of SOTs cells irradiated with a 900 r dose from 19.5 to 40%. No potentiated effect was produced by combining AET with veronal or AET with evipol. Survival of cells was markedly increased by combining AET with propylgallate, AET with gramicidin, AET with vinylpyrrolidone, anoxia with vinylpyrrolidone and anoxia with pyridine. However, a potentiated effect cannot be produced by combining gramicidin with vinylpyrrolidone. It is concluded that a potentiated radioprotective effect is produced by combining preparations with different action mechanisms in relation to radicals. Orig. art. has: 1 table.

SUB CODE: 06, 07/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 3/3

SHESTAKOVA, T.I.

Bacterial population of the water and bottoms of Novosibirsk  
Reservoir according to observations made during 1957-1958.  
Trudy Biol. inst. Sib. otd. AN SSSR no.7:23-40 '61. (MIRA 15:3)  
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'64. (MIRA 18:7)

USSR / Human and Animal Physiology. Internal Secretion, Thyroid  
Gland

Abs Jour : Ref Zhur - Biol., No 15, 1958, No. 70334

Author : Burgsdorf, M. V.; Volkova, V. P.; Shostakova, T. N.

Inst : Not given

Title : The Problem of the Uptake and Excretion of Isotopes of  
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Orig Pub : In the collection, Tr. obl. konferentsii po endemich.  
zoby i boloznym shchitovidn. zhelezy. Chelyabinsk, 1957,  
110-114

Abstract : No abstract given

Card 1/1

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KISELEVA, Ye.N.; GEL'PERIN, N.I.; SHESTAKOVA, V.A.; TELENETSKIY, N.N.

Use of extraction by pairs of solvents for the purification of  
phenyl ethyl alcohol. VNIISNDV no.5:102-107 '61. (MIRA 14:10)  
(Phenetethyl alcohol) (Extraction (Chemistry))

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(Phenethyl alcohol)

KHAN, O.A.; URUBKOVA, E.I.; SHESTAKOVA, V.A.

New hydro- and electrometallurgical flowsheet for obtaining high purity zinc. Trudy Alt. GMNII AN Kazakh. SSR 9:173-180 '60.  
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(Zinc--Electrometallurgy)  
(Hydraulic metallurgy)

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"Role of Microorganisms in the Nourishment of Ligneous Plants," edited by  
A. A. Imshenetskiy, Corresponding Member, Academy of Medical Sciences USSR, Moscow,  
Publishing House of the Academy of Sciences USSR, 1955, 239 pp

Sum 1467

Country :	USSR	I
Category :	Plant Physiology. Mineral Nutrition.	
Abs Jor. :	Ref. Zhur.-Biologiya No. 11, 1958. No. 48534	
Author :		
Institu. :		
Title :		
Orig. Lng.:		
Abstract :	ash seedlings was lowered in comparison with the control (which was not enriched) through the biological fixation of the phosphorus fertilization; the biological absorption of phosphates was reduced with decreased environmental moisture. Reduction in the availability of P <sub>32</sub> did not affect plant growth. By the tenth day the plants had already consumed a substantial amount of the	

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V.A. SHESTAKOVA, ( A.I. Akhromeyko)

"THE ROLE OF RHIZOSPHERIC MICROORGANISMS IN NUTRITION OF FOREST PLANTS"

by A. I. Akhromeyko, V. A. Shestakova

Report presented at UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

SHESTAKOVA, V.A.

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001549310018-9"

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AKHROMEYKO, A.I.; SHESTAKOVA, V.A.

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8074 / 2713

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